

# Safety

Safe and Secure Travel



## TABLE OF CONTENTS

1-1	Introduction
1-2	2016 Performance Highlights
1-3	Florida Transportation Plan
1-4	Fatalities & Serious Injuries
1-9	Fatality Rate
1-10	Fatalities Involving Lane Departures and Intersections
1-12	Fatalities in Work Zones
1-13	Safety Belt Usage
1-14	Fatalities Involving Impaired, Speeding & Aggressive, and Distracted Driving
1-15	Fatalities Involving At-Risk Drivers
1-16	Fatalities Involving Vulnerable Road Users
1-17	Fatalities Involving Commercial Motor Vehicles
1-17	Fatalities Involving Railroads
1-19	Fatalities and Injuries Involving Public Transit
1-20	Transit Revenue Miles between Safety Incidents
1-21	Fatalities Involving Aviation
1-22	Transportation Security
1-25	Partner Connections

## SAFETY

*This report is part of the Florida Department of Transportation's (FDOT) Performance-Based Planning and Programming Process. For a description of that process, updates to this report and other FDOT transportation performance reporting initiatives, go to [FDOTPerforms.org](http://FDOTPerforms.org).*

## INTRODUCTION

*The Strategic Highway Safety Plan (SHSP) is a foundation for FDOT's highway safety activities and plans through engineering, education, enforcement, and emergency response.*

Transportation safety and security are among Florida's highest commitments to residents, businesses, and visitors. Safety improvements and promotion save lives, enhance quality of life, and support the state's economic competitiveness. It is essential to be vigilant about transportation system security for people and freight.

Transportation safety spans all modes. It is affected by many factors, such as driver behavior, road conditions, technology, enforcement and education, weather, and the natural environment. It is essential that federal, state, regional and local safety partners and other stakeholders work together to improve transportation safety.

FDOT's long-term aspirational vision is zero deaths on Florida's roadways. To advance this vision, safety is addressed in numerous FDOT plans, including the Florida Transportation Plan (FTP), the Florida Strategic Highway Safety Plan (SHSP), and the Florida Pedestrian and Bicycle Strategic Plan.

FDOT collaborates with its safety partners to implement Florida's SHSP to reduce fatalities and serious injuries by strategically targeting resources to the problems with the greatest potential for improvement. The SHSP provides a foundation for FDOT's highway safety activities and plans and is led by a group of dedicated public and private sector safety partners dedicated to achieving successful implementation.

In 2015, traffic fatalities increased by 17.8 percent over the prior year. Despite safer highway design, safer motor vehicles, increased safety belt use, improved public education, vigorous enforcement of laws, and improved emergency response and trauma treatment, there is obviously more work to do. Driver behavior, for example, is a safety challenge requiring continuous attention. Safety improvements often take several years to properly evaluate. Readers should exercise restraint in making broad conclusions based on year-to-year fluctuations of safety statistics.

## 2016 PERFORMANCE HIGHLIGHTS

Safety and security is an FDOT priority and a primary focus of the Florida Transportation Plan. Key performance highlights include:

- Fatalities on Florida roads increased 17.8 percent from 2,494 to 2,939 between 2014 and 2015; while serious injuries increased 3.1 percent from 20,912 to 21,551 over the same period.
- The Florida roadway fatality rate (fatalities per 100 million vehicle miles traveled) increased from 1.24 to 1.42 between 2014 and 2015—a 14.5 percent increase.
- Fatalities due to lane departure and intersection crashes account for 69 percent of all traffic fatalities.
- Fatalities in construction work zones increased from 63 to 77 between 2014 and 2015—the most work zone fatalities since 2011.
- Safety belt usage continued to climb, improving to 89.4 percent statewide—almost one point higher than the national average.
- Fatalities due to impaired, speeding and aggressive driving increased over the prior year—impaired driving fatalities increased from 749 to 851; speeding and aggressive driving fatalities increased from 324 to 413.
- Fatalities involving at-risk drivers in 2015 increased over the prior year—aging road user fatalities increased from 468 to 531; and teen fatalities increased from 213 to 263.
- Fatalities involving vulnerable road users in 2015 increased over the prior year—pedestrian fatalities increased from 606 to 632; motorcyclist fatalities increased from 449 to 583; and bicyclist fatalities increased from 135 to 153.
- Fatalities involving commercial motor vehicles in 2015 increased 20.7 percent over the prior year from 232 to 280.
- Transit injuries decreased to 1,117 in 2015—transit fatalities remain low.

## FLORIDA TRANSPORTATION PLAN



The Florida Transportation Plan (FTP) is Florida's long range transportation plan for meeting the dynamic mobility needs of residents, businesses, and visitors. FDOT's Safety Performance Report aligns with the FTP goal:

- *Safety and Security for Residents, Visitors, and Businesses*

This report highlights the core and supporting performance measures related to this FTP goal, and other transportation plans and programs.



### FTP Goal: *Safety and Security for Residents, Visitors, and Businesses*

#### FTP Objectives

*Prevent transportation-related fatalities and injuries*

*Reduce the number of crashes on the transportation system*

*Prevent and mitigate transportation-related security risks*

*Provide transportation infrastructure and services to help prepare for, respond to, and recover from emergencies*

#### Related Performance Report Measures



##### CORE MEASURES

##### Fatalities & Serious Injuries

- ④ *Fatality Rate*



##### SUPPORTING MEASURES

##### Fatalities involving:

- ④ *Lane Departures*
- ④ *Intersections*
- ④ *Work Zones*
- ④ *Impaired Driving*
- ④ *Speeding and Aggressive Driving*
- ④ *Distracted Driving*
- ④ *Aging Road Users*
- ④ *Teen Drivers*
- ④ *Pedestrians*
- ④ *Bicyclists*
- ④ *Motorcyclists*
- ④ *Commercial Motor Vehicles*
- ④ *Rail*
- ④ *Public Transit*
- ④ *Aviation*

##### Additional Supporting Measures

- ④ *Safety Belt Usage*
- ④ *Transit Injuries*
- ④ *Transit Revenue Miles Between Safety Incidents*

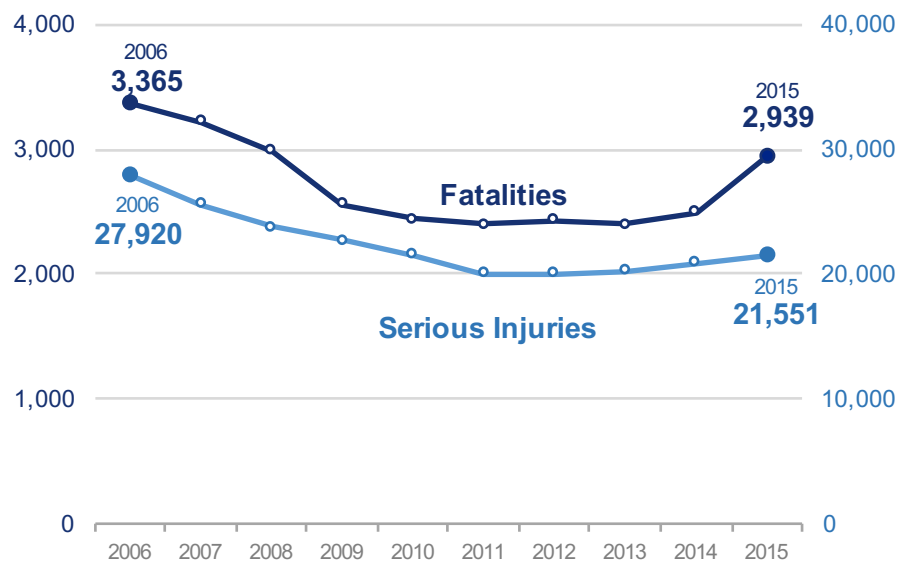
## FATALITIES & SERIOUS INJURIES



FDOT's core measures for transportation safety are fatalities and serious injuries. **Figure 1** shows that fatalities decreased between 2006 and 2011, but began to increase thereafter. Fatalities jumped sharply by 17.8 percent between 2014 and 2015. By comparison, population and vehicle miles traveled (VMT) grew by only 1.7 percent and 2.8 percent respectively over this same period. The number of serious injuries followed a similar trend, but the increase occurred at a slower rate.

**Figure 1: Fatalities and Serious Injuries**

*Fatalities and serious injuries in 2015 increased over the prior year—fatalities by 17.8 percent and serious injuries by 3.1 percent.*

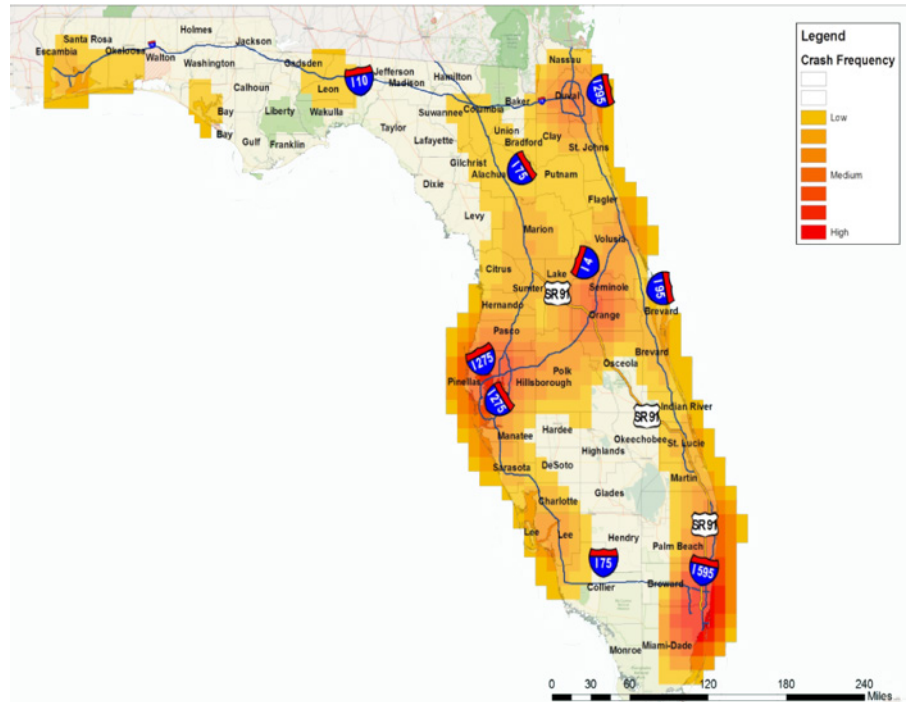


SOURCE: Florida Department of Transportation, State Safety Office



**Figure 2** shows a safety locational “heat map” of Florida fatalities and serious injuries. The highest level of fatalities and serious injuries are concentrated within major urbanized areas and along Interstate highways.

**Figure 2: Fatalities and Serious Injuries (2011-2015)**



SOURCE: Florida Department of Transportation, State Safety Office

## Strategic Highway Safety Plan (SHSP)

The Strategic Highway Safety Plan (SHSP) advances Florida’s vision to eliminate fatalities and reduce serious injuries on all public roads. The SHSP was developed as a part of the Florida Transportation Plan (FTP) Implementation Element to address highway safety and aligns with the FTP Vision and Policy elements. The SHSP is a statewide, data-driven safety plan for all Florida road users. The SHSP includes 13 emphasis areas. It also defines a framework for implementation activities to be carried out through strategic safety coalitions as well as specific activities by FDOT, other state agencies, metropolitan planning organizations, local governments, and other partners.

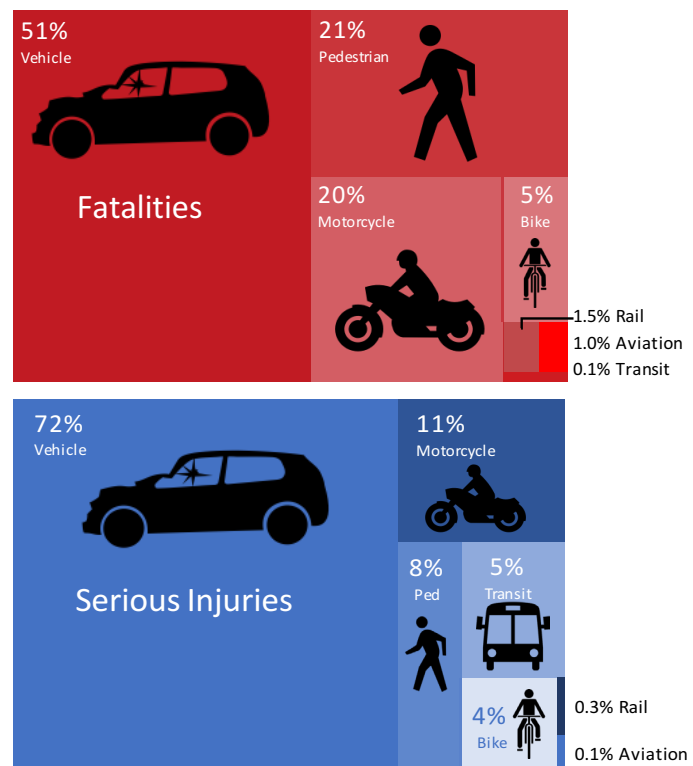


**Figure 3** shows that vehicle crashes accounted for the majority of fatalities and serious injuries in 2015. However, pedestrian and motorcycle fatalities were a significant portion of total fatalities and serious injuries (particularly in relation to the smaller portion of trips made using these modes). Although, it's important to note that fatal crashes went up across the board in 2015, pedestrian and bicyclist fatalities do represent a smaller percentage than in 2014.

- In 2014, pedestrians accounted for 23.9 percent of all fatalities. In 2015, pedestrians accounted for 21.2 percent of all fatalities. That's a 2.7 percent reduction.
- In 2014, bicyclists accounted for 5.5 percent of all fatalities. In 2015, bicyclists accounted for 5.2 percent of all fatalities. That's a 0.3 percent reduction.

Together bicycle and pedestrian fatalities were reduced from 29.8 percent in 2014 to 26.7 percent in 2015.

**Figure 3: Florida Transportation Fatalities and Serious Injuries by Mode, 2015**



SOURCE: Florida Department of Transportation, State Safety Office



## KEY STRATEGIES TO REDUCE FATALITIES AND SERIOUS INJURIES

FDOT and partner organizations strive to reduce fatalities and serious injuries through the strategies identified below from the Florida Transportation Plan (FTP) and the Strategic Highway Safety Plan (SHSP):

- Pursue aligned activities for design, engineering, enforcement, education, and emergency response to reduce fatalities, injuries, and crashes.
- Identify, develop, and deploy engineering solutions and other promising practices that encourage safe driving behaviors and reduce roadway fatalities and serious injuries.
- Integrate safety focused policies and practices with roadway design, construction, operation, and maintenance to make Florida's transportation system safer for all users.
- Ensure that transportation facility designs include safe and efficient access for first responders.
- Increase safety and security for public transportation users.
- Increase safety and security for people with limited mobility.
- Expand the use of context-sensitive design to improve safety for all travelers, including pedestrians and bicyclists.
- Continue to support research, testing, policy, and deployment activities to realize the anticipated safety benefits of automated and connected vehicle technologies.
- Increase targeted enforcement activities in high-crash locations.
- Increase enforcement efforts that discourage high-risk driving behaviors.
- Coordinate with prosecutors and the courts to improve prosecution and adjudication of traffic safety-related cases.
- Educate all road users about sharing the road.
- Develop and implement communication strategies for all road users and improve public awareness of highway safety needs.
- Increase training and educational opportunities for first responders and other traffic safety partners focused on reducing roadway-related fatalities and serious injuries.

SUPPORTING MEASURES  
AND INFORMATION

In addition to the core measures, FDOT has identified several supporting measures that provide further detail and context about the performance of Florida's transportation system. For safety and security, the supporting measures are:



## Fatality Rate



## Fatalities involving:

- Lane Departures
- Intersections
- Work Zones
- Impaired Driving
- Speeding and Aggressive Driving
- Distracted Driving
- Aging Road Users
- Teen Drivers
- Pedestrians
- Bicyclists
- Motorcyclists
- Commercial Motor Vehicles
- Rail
- Public Transit
- Aviation



## Safety Belt Usage



## Transit Injuries



## Transit Revenue Miles Between Safety Incidents

Due to changes in Florida's crash reporting form, some historic data is unavailable for a full ten year period—data is reported for the years available. It is expected that all measures will eventually include data for a full ten-year period to reflect longer term trends.

## SafeRoutes



Since Safe Routes to Schools (SRTS) legislation was enacted in 2005, SRTS programs have demonstrated the safety and health benefits associated with active travel (e.g., bicycling and walking). SRTS programs have improved safety and increased the number of students walking and bicycling to school.

Since 2014 the SRTS program has:

- Involved outreach to 1,036 schools
- Engaged 247,570 students
- Participated in 441 community events
- Engaged 80,931 people at community events
- Conducted 217 walkability checklists/site assessments



## Fatality Rate

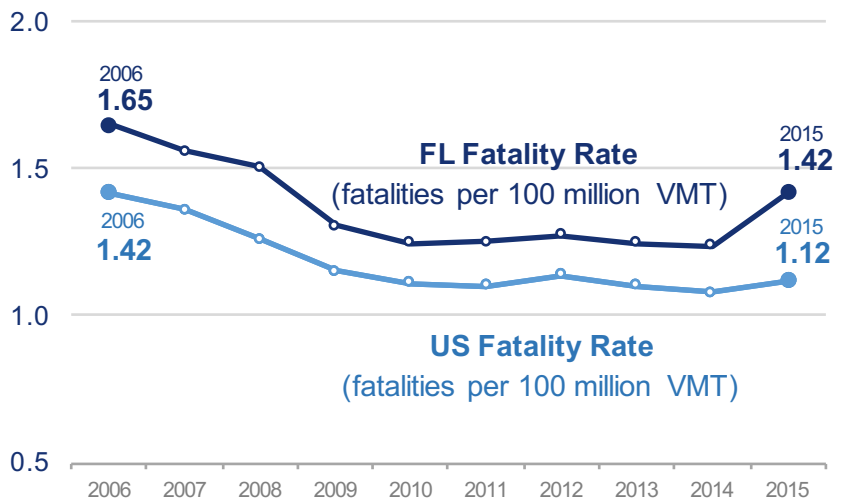


The fatality rate is the number of fatalities per 100 million vehicle miles traveled (VMT). It includes motor vehicle and motorcyclist fatalities as well as bicyclist and pedestrian fatalities involving motor vehicles.

**Figure 4** shows that Florida's highway fatality rate per 100 million VMT increased to 1.42 in 2015, and has been consistently higher than the national fatality rate over the past decade.

*Florida's fatality rate—the number of fatalities per 100 million VMT—increased between 2014 and 2015. Nationally the fatality rate increased as well, but at a lower rate.*

**Figure 4: Fatality Rate**



SOURCE: Florida Department of Transportation, State Safety Office, the Florida Department of Highway Safety and Motor Vehicles, Traffic Crash Facts Annual Report, and the National Highway Traffic Safety Administration: Fatality Analysis Reporting System (FARS) Encyclopedia

## Fatalities Involving Lane Departures and Intersections

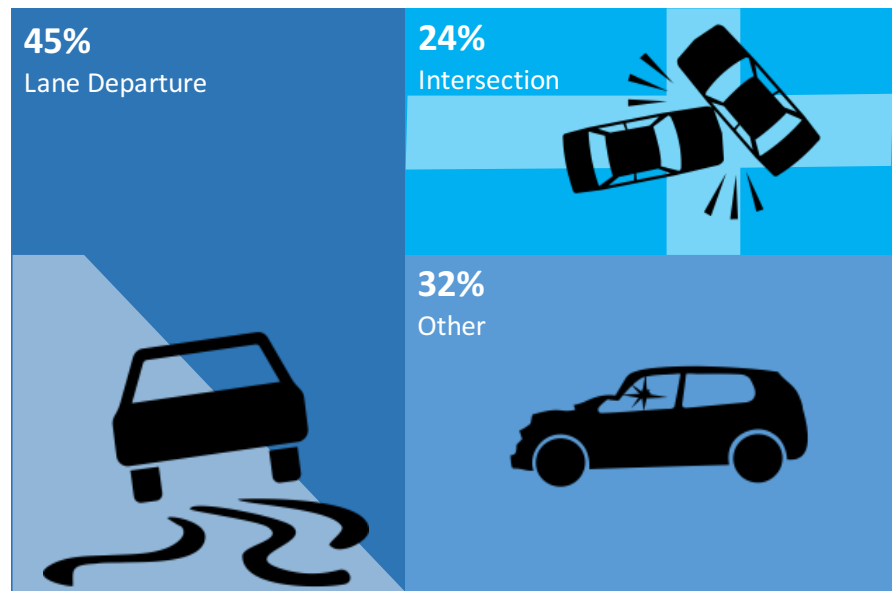


SUPPORTING  
MEASURE

45 percent of all fatalities on Florida roadways involve a vehicle lane departure—an increase of 14.5 percent over the prior year.

The majority of Florida's roadway crashes occur either at intersections or by vehicles departing their lane, as shown in **Figure 5**. These crash types are of particular concern.

**Figure 5: Florida Fatalities by Crash Type, 2015**



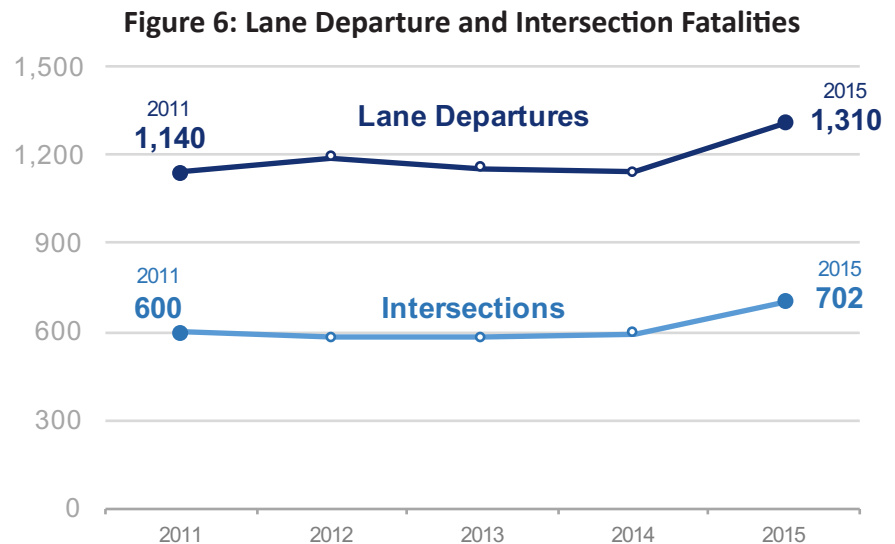
SOURCE: Florida Department of Transportation, State Safety Office

Approximately 45 percent of all 2015 Florida traffic fatalities involved lane departures. Lane departures include vehicles running off the road, crossing the center median into oncoming traffic, and sideswipe crashes. Lane departure crashes may also involve a vehicular rollover or hitting a fixed object such as a utility pole.

Traffic fatalities at intersections comprised 24 percent of statewide traffic fatalities in 2015. Identified as an emphasis area in the 2006, 2012, and 2016 Strategic Highway Safety Plans, Florida has improved intersection design and operation standards. These accidents have various causes, including driver behaviors, that must be addressed in other ways.

Figure 6 shows that 1,310 lane departure fatalities and 702 intersection fatalities occurred in 2015, both increases over the prior year.

*Lane departure and intersection fatalities increased between 2014 and 2015.*

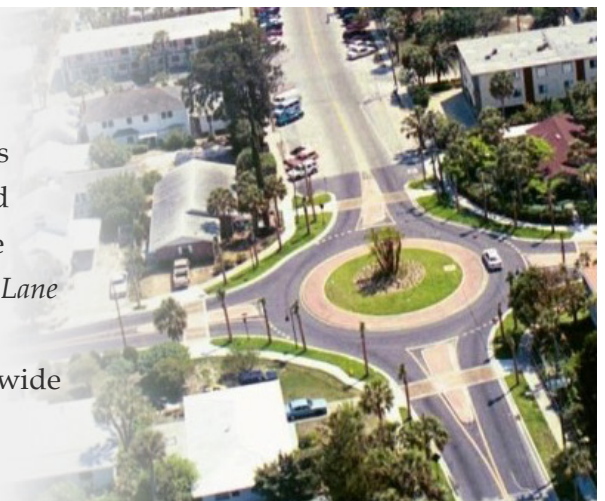


SOURCE: Florida Department of Transportation, State Safety Office

Efforts to keep vehicles from leaving the road or crossing the center median are essential for reducing the likelihood of vehicles overturning, crashing into roadside objects, or hitting other vehicles. The number and severity of lane departure crashes may be reduced by installing a guardrail or cable barrier, dividing highways, adding paved shoulders, using break-away sign posts, placing crash cushions at the end of roadside obstacles, highlighting pavement edges on rural highways, improving roadway curve design, and improving roadway lighting at intersections. The promotion and enforcement of safe driving behaviors also warrants continued if not greater emphasis in light of recent trends.

### Lane Departure and Intersection Coalition

The Lane Departure and Intersection Coalition's mission is to analyze data, develop strategies, and implement improvements to eliminate fatal and serious injury crashes at intersections and those associated with lane departures. With assistance from the Federal Highway Administration, the Coalition developed the *Lane Departure Implementation Plan* and is also developing a plan for intersections. The Coalition also leverages efforts of other statewide coalitions such as the Safe Mobility for Life Coalition and the Florida Impaired Driving Coalition.



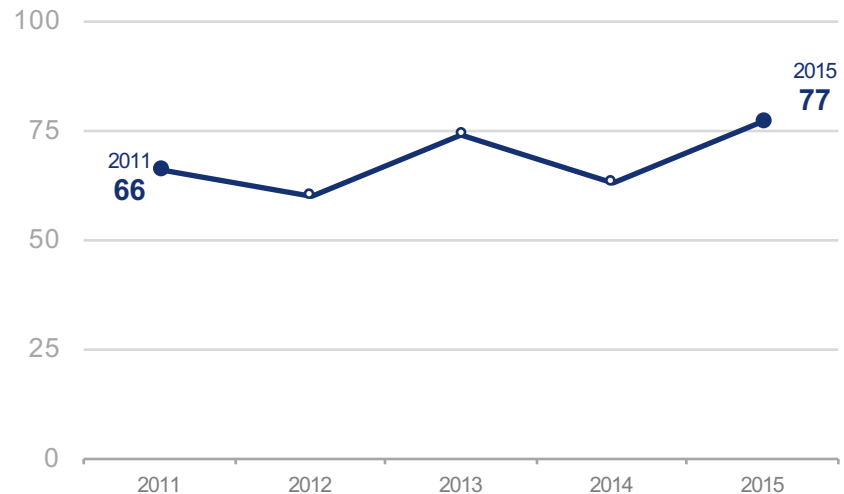
## Fatalities in Work Zones



The safe and efficient flow of traffic through work zones is an ongoing FDOT area of emphasis. Reducing work zone crashes can save lives and improve safety for FDOT employees and contractors. **Figure 7** shows that fatalities in work zones increased from 63 in 2014 to 77 in 2015.

**Figure 7: Fatalities Involving Work Zones**

*Fatalities in work zones increased from 63 to 77 between 2014 and 2015—the highest number over the past five years.*



SOURCE: Florida Department of Transportation, State Safety Office

### Work Zone Safety

FDOT's Work Zone Safety campaign continues promoting recognition and prevention of the dangers of reckless driving in highway work zones. National Work Zone Awareness Week encourages safe driving through highway work zones and construction sites. The key message is to use extra caution in work zones. The theme for National Work Zone Awareness Week 2016 was "Don't Be That Driver."

### Work Zone

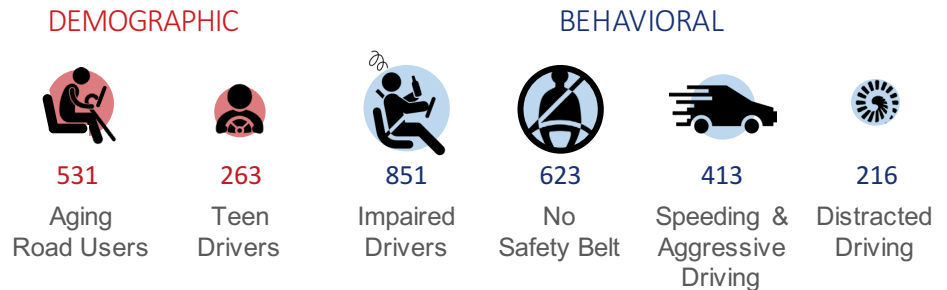




## Demographic and Behavioral Factors

Many crashes are caused by driver behaviors, poor choices, and inadequate skills/experience. **Figure 8** shows the number of 2015 fatalities by various demographic and behavioral factors. Some fatalities involve more than one factor. Any and all factors associated in any single fatality are counted as contributing causes. As such, the sum of the individual numbers shown is greater than the total number of actual fatalities.

**Figure 8: Fatalities Involving Demographic and Behavioral Factors, 2015**



SOURCE: Florida Department of Transportation, State Safety Office

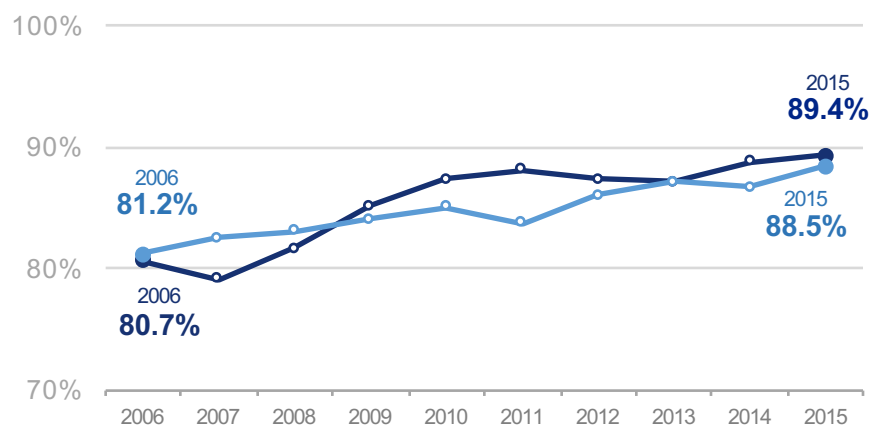
NOTE: These numbers include the driver and other involved persons

## Safety Belt Usage



Wearing a safety belt is the most important preventative measure that drivers and passengers can take for crash protection. **Figure 9** shows that Florida motorists are wearing safety belts at greater rates. The increase is due in part to the passage of a primary enforcement law in 2009—the usage rate jumped from 81 percent to 87 percent the following year. In 2015 the statewide safety belt usage rate stood at 89.4 percent, which is almost one point higher than the national average of 88.5 percent.

**Figure 9: Safety Belt Usage Rate**



SOURCE: Florida Department of Transportation, State Safety Office and the National Traffic Safety Administration, Traffic Safety Fact (Feb. 2016)

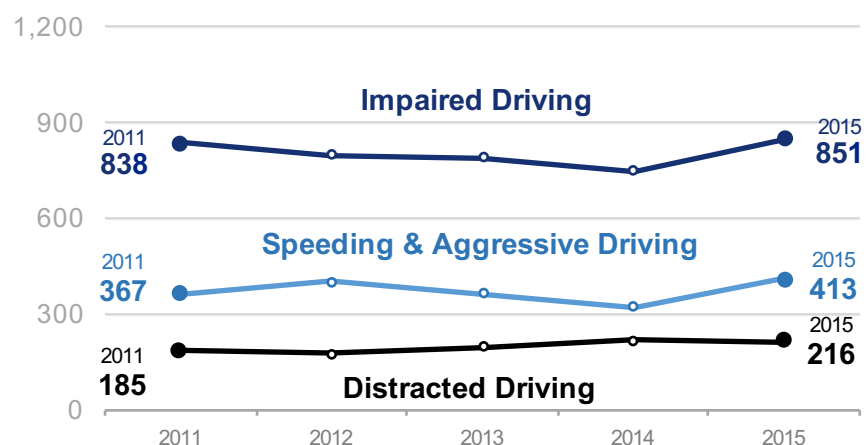
*Florida's statewide safety belt usage rate of 89.4 percent is almost one point higher than the national average.*

## Fatalities Involving Impaired, Speeding & Aggressive, and Distracted Driving



Impaired, speeding, aggressive, and/or distracted driving often contributes to the frequency and severity of traffic crashes. **Figure 10** shows the number of fatalities involving impaired, speeding, aggressive, and distracted drivers. Due to crash reporting changes in 2011, historical comparisons prior to 2011 are difficult to make. These recent increases underscore that many of the fatal crashes are caused by poor choices and behaviors of drivers, underscoring that education and enforcement activities are essential.

**Figure 10: Fatalities Involving Impaired Drivers, Speeding & Aggressive Driving, and Distracted Driving**



SOURCE: Florida Department of Transportation, State Safety Office

**Impaired driving** continues to be a leading causal factor for traffic fatalities. In 2015, 851 fatalities were related to alcohol and drug use, which is a 13.6 percent increase over the prior year.

**Speeding** is a component of **aggressive driving**, which also includes unsafe or improper lane changes, following too closely, failure to yield the right-of-way, improper passing, red light running, weaving in and out of traffic, and passing improperly. In 2015, 413 fatalities were caused by speeding and aggressive driving, a 27.4 percent increase over the prior year.

**Distracted driving** occurs when a driver allows a mental or physical activity to divert his or her focus away from driving—i.e., taking hands off the wheel, taking eyes off the road, and taking one's mind off driving. Not only are drivers distracted because of activities such as adjusting the radio, eating, reading, and grooming; new technologies have introduced global positioning system (GPS) navigation, direction way-finding, telephone use, mobile web surfing, and texting as further driver distractions. In 2015, 216 fatalities were caused by distracted driving, a 1.4 percent decrease over the prior year.

*In 2015, 413 fatalities were caused by speeding and aggressive driving, a 27.4 percent increase over the prior year.*

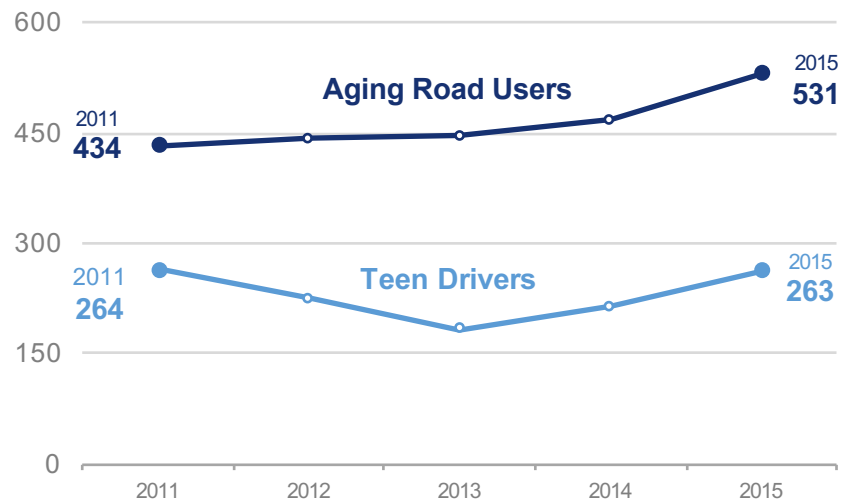
## Fatalities Involving At-Risk Drivers



*Fatalities involving aging road users and teen drivers have increased in recent years.*

Historically, fatalities involving aging road users (age 65 and over) and teen drivers (ages 15 to 19) accounted for about one quarter of all Florida traffic fatalities. **Figure 11** shows that fatalities involving at-risk drivers have increased in recent years. In 2015, fatalities involving at-risk drivers accounted for about 27 percent of all fatalities.

**Figure 11: Fatalities Involving At-Risk Drivers**



SOURCE: Florida Department of Transportation, State Safety Office

NOTE: The data presented above only includes the teen and aging road users. It does not include other people that died as a result of the crashes.

Today's seniors are driving longer and driving more miles. This trend is significant considering that 18 percent of Florida's population is 65 years of age and older—the most in the nation. According to the Florida Office of Economic and Demographic Research, by 2040, over 24 percent of Floridians will be over 65, and more than half will be over 75, making this a particularly pressing and looming safety challenge.

*Motor vehicle crashes are the number one killer of teens, with more teens dying in crashes than the next three leading causes of death combined.*

The other end of the age spectrum is the least experienced group of drivers—those between the ages of 15 and 19. Motor vehicle crashes involving teen drivers kill an average of 11 teens every day in the United States. Motor vehicle crashes are the number one killer of teens, with more teens dying in crashes than the next three leading causes of death (homicide, suicide, and disease) combined.

## Fatalities Involving Vulnerable Road Users



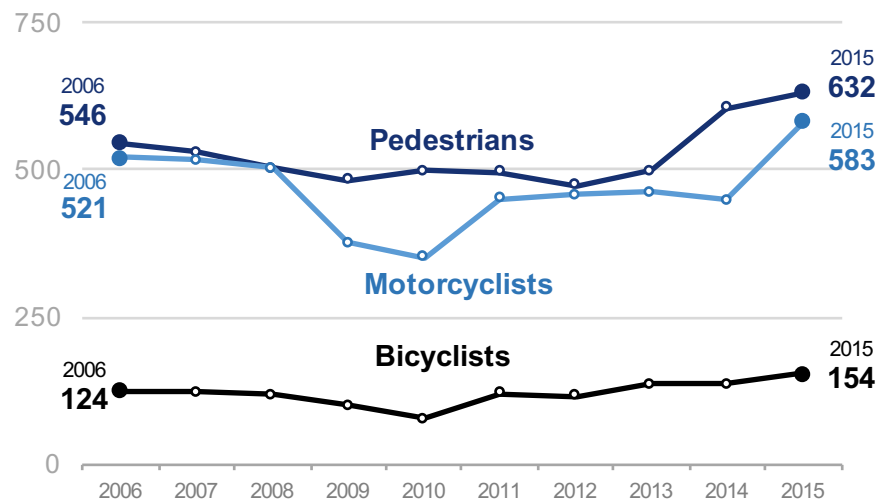
Vulnerable road users include pedestrians, bicyclists, and motorcyclists.

**Figure 12** shows that vulnerable road user fatalities are increasing. Florida's climate, conducive to year-round walking, bicycling and motorcycling, is a factor in the high rate of fatalities among these road user groups. While vulnerable road user fatalities did increase over the prior year, they accounted for a smaller proportion of total fatalities.

Pedestrian and bicycle safety is an FDOT initiative, which includes a statewide bicycle pedestrian safety program manager in the Safety Office, and a designated champion for the effort in each district.

*Fatalities among vulnerable road users have increased over the past few years.*

**Figure 12: Fatalities Involving Vulnerable Road Users**



SOURCE: Florida Department of Transportation, State Safety Office

### Florida Pedestrian and Bicycle Strategic Safety Plan

Florida is committed to improving transportation system safety through various programs and plans. The Florida Pedestrian and Bicycle Strategic Safety Plan directs funding and resources to the areas that have the greatest potential for reducing pedestrian and bicycle fatalities, injuries, and crashes. The plan provides guidance to FDOT, partners, and stakeholders on ways to develop a safer environment for walking and bicycling.

The plan is supported by the Safe Mobility for Life program, which promotes safety strategies for the state's aging population, and the Alert Today, Alive Tomorrow program, a media campaign to pay attention and follow the rules of the road.

### FLORIDA PEDESTRIAN AND BICYCLE STRATEGIC SAFETY PLAN

SAFETY DOESN'T HAPPEN BY ACCIDENT



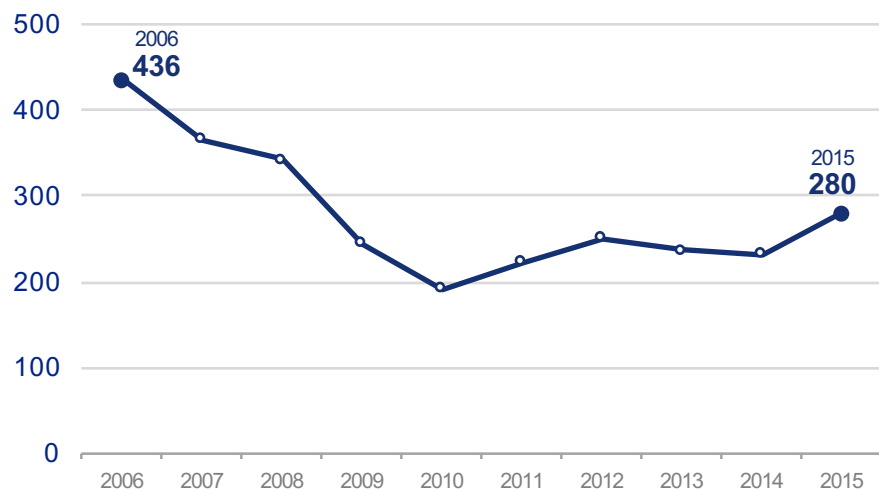
## Fatalities Involving Commercial Motor Vehicles



Population growth brings new opportunities as well as challenges for freight movement. FDOT strives to improve commercial motor vehicle safety with the Florida Highway Patrol's (FHP) Commercial Vehicle Enforcement (CVE) Office by conducting safety inspections and enforcing safety requirements.

**Figure 13** shows that fatalities involving commercial motor vehicles decreased from 436 in 2006 to 192 in 2010, which correlates with the decrease in commercial motor vehicle truck miles traveled (see **Figure 3** in the **Mobility Report**). Consistent with the increase in truck miles traveled, fatalities began to rise after 2010, with 280 fatalities in 2015 related to commercial motor vehicles.

**Figure 13: Commercial Motor Vehicle Fatalities**



SOURCE: Florida Highway Safety and Motor Vehicles; Traffic Crash Facts Annual Report, FDOT Multimodal Mobility Performance Measures Source Book

## Fatalities Involving Railroads



*Approximately 80 percent of Florida's public at-grade rail crossings are equipped with active warning devices compared to approximately 50 percent nationally.*

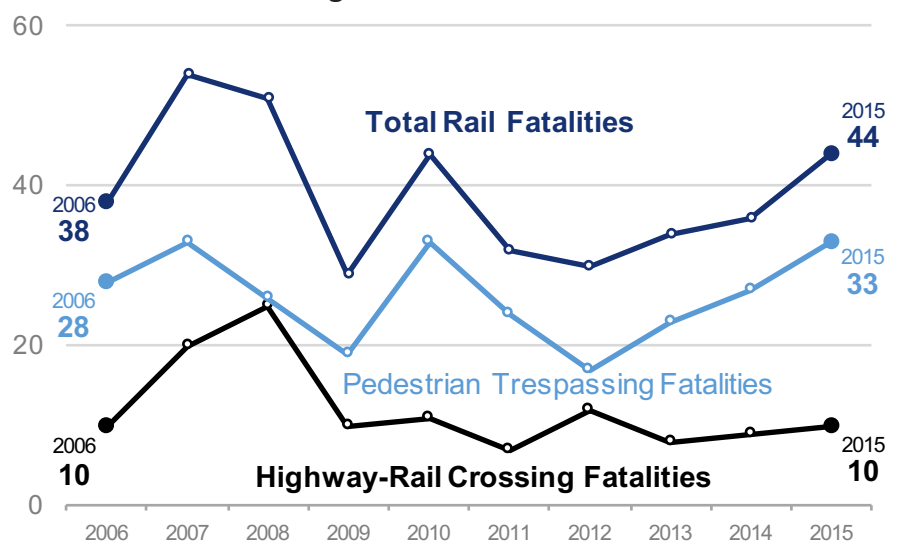
Florida has 3,690 public at-grade rail crossings with approximately 80 percent equipped with active warning devices (crossing arms, flashing lights, bells, etc.). Nationally approximately 50 percent of rail crossings have such safety features. However, both crashes and fatalities at rail crossings have been increasing. This is noteworthy as more trains are operating on fewer rail lines. This concentration of rail traffic may allow greater targeting of safety improvements.

Pedestrian trespassing on railroad property is a problem that FDOT and the railroads are addressing. There were 33 fatalities at these locations in 2015. Preventive measures include installing no trespassing signs, installing and repairing fencing, and working with local police departments to issue warnings and citations.

**Figure 14** shows that the number of rail-related fatalities (pedestrian trespassing and rail crossing) have fluctuated over the past decade, but began to trend upwards after 2012. While total rail fatalities have been increasing (due to the increase pedestrian trespassing fatalities), the number of highway-rail crossing fatalities have remained fairly constant since 2009.

**Figure 14: Rail Fatalities**

*Reducing rail-related fatalities remains a challenge.*



SOURCE: Federal Railroad Administration, Office of Safety Analysis

### Florida Operation Lifesaver

Florida Operation Lifesaver is a non-profit public awareness and education program dedicated to ending collisions, fatalities, and injuries at highway-rail grade crossings and on railroad property. Every 3 hours, a person or vehicle is hit by a train in the United States. Operation Lifesaver is working to promote safe behavior around railroad tracks and crossings with the national public awareness campaign, "See Tracks? Think Train!"





## Fatalities and Injuries Involving Public Transit

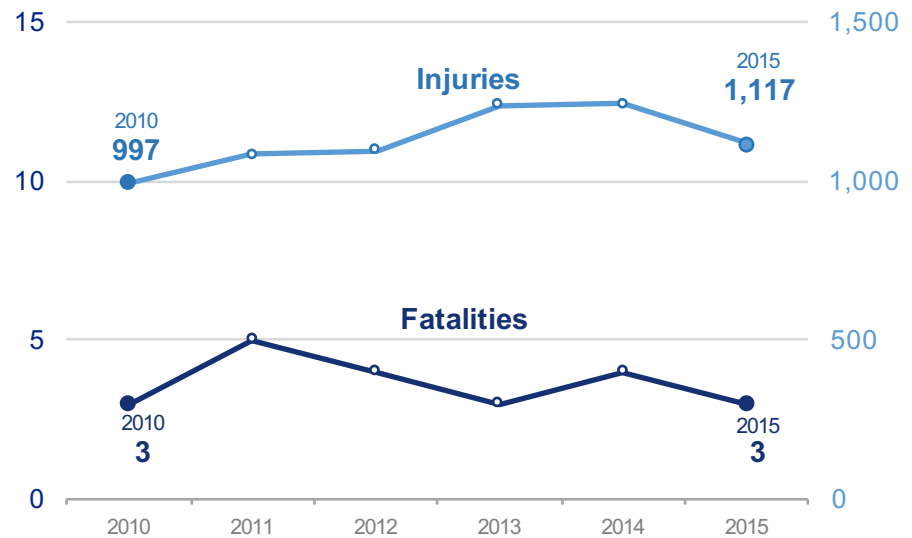


**Figure 15** shows the number of transit related safety incidents (fatalities and injuries) reported to the National Transit Database (NTD). NTD safety incidents include both major and minor incidents. Major incidents include fatalities and injuries requiring immediate medical attention and minor incident injuries including slips, trips and falls. The number of transit related injuries increased to a high of 1,242 in 2014, but decreased to 1,117 in 2015. The number of transit related fatalities remained low over the period.

Florida has 31 fixed-route transit systems (including Metrorail, Tri-Rail and SunRail) with approximately 270.8 million transit trips in 2015. Most of Florida's public transit systems operate buses on roads and highways. As such, the performance and safety of the roadway system can affect public transit safety and on-time performance. Similarly, incidents involving public transit vehicles can impede the flow of automobile traffic.

*The number of transit related injuries declined in 2015.*

**Figure 15: Transit Fatalities and Injuries**



SOURCE: Florida Department of Transportation, Public Transit Office  
Data represents Florida's 31 fixed-route transit systems

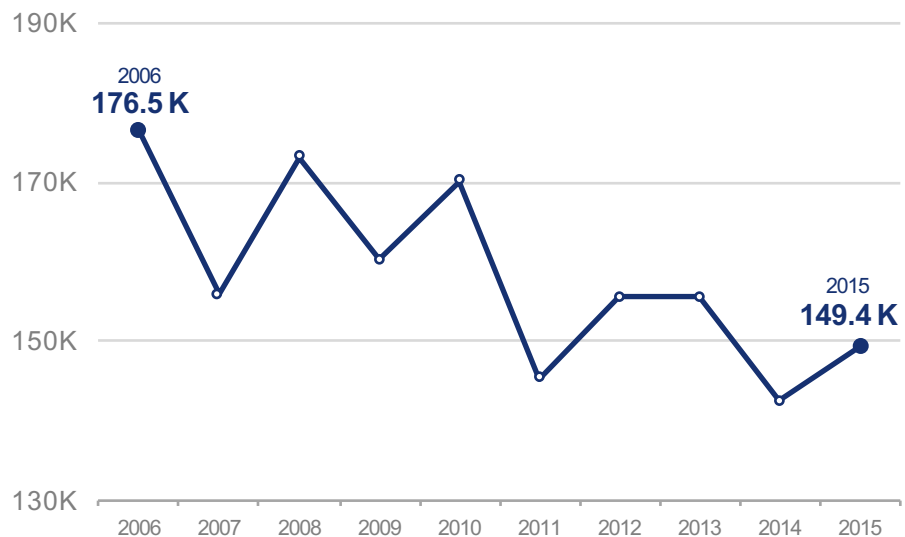
## Transit Revenue Miles between Safety Incidents



*In 2015, the number of transit revenue miles between safety incidents improved slightly to one per 149,437 miles from one per 142,425 miles in 2014.*

**Figure 16** illustrates the number of revenue miles between public transit safety incidents. This measure reflects safety incident frequency in relation to transit revenue miles traveled. The goal is to decrease the frequency of safety incidents. In 2015, the number of revenue miles between safety incidents increased (i.e., improved) to one per 149,437 revenue miles from one per 142,425 miles in 2014. FDOT's Transit Office provides training and technical assistance to Florida transit agencies to promote a safe traveling environment.

**Figure 16: Transit Revenue Miles between Safety Incidents (thousands)**



SOURCE: Florida Department of Transportation, Public Transit Office  
Data represents Florida's 31 fixed-route transit systems

## Fatalities Involving Aviation



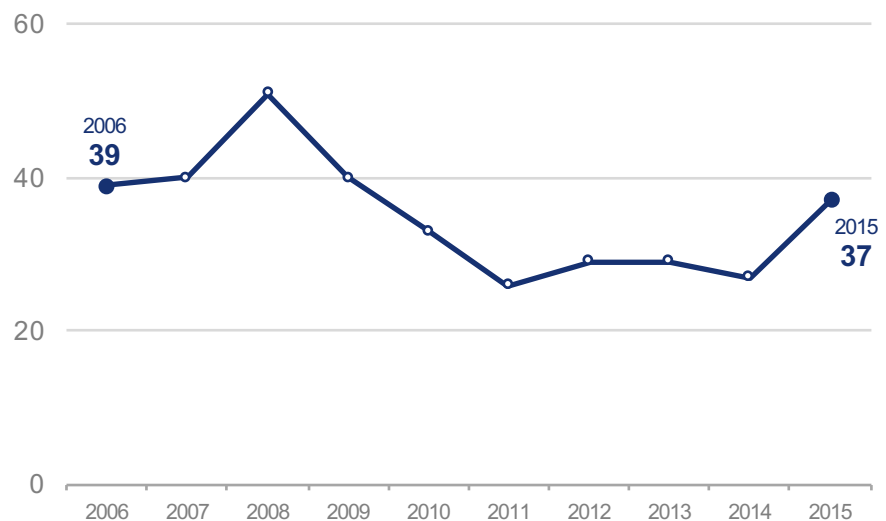
Between 2006 and 2015, there were 351 aviation fatalities in Florida, with a high of 51 in 2008 and a low of 26 in 2011. The average number of fatalities per year was 35 between 2006 and 2015. In 2015, 37 fatalities occurred in Florida, more than in the previous five years. The number of aviation fatalities has fluctuated—increasing between 2006 and 2008, declining between 2008 and 2011, leveling off between 2011 through 2014, and then increasing back up in 2015. **Figure 17** shows the overall trend for aviation fatalities.

Florida has 20 commercial service airports serving 73.2 million passengers in 2015. Statewide there are 779 public, private, and military aviation facilities. Close to two thirds (63 percent) are airports and another third (37 percent) are heliports. Florida has 108 general aviation public-use facilities meeting corporate, training and other needs by providing critical access to local communities.

FDOT regulates Florida's public-use aviation facilities through permitting, safety inspection, and licensing. All private-use facilities are registered with FDOT.

*Aviation fatalities increased in 2015 relative to the prior five years.*

**Figure 17: Aviation Fatalities**



SOURCE: National Transportation Safety Board, Aviation Accident Database & Synopses (includes: airplanes, gliders, balloons, blimps/dirigibles, ultralights, gyroplanes, powered-lifts, powered-parachutes, and weight-shifts)

## TRANSPORTATION SECURITY

*Each county must have an emergency management plan per state statute (252.38, F.S.) – all 67 Florida counties are currently in compliance.*

Transportation security entails comprehensive emergency preparedness efforts and vigilant oversight of modal facilities and services. Emergency management and transportation security requires collaboration with law enforcement agencies and others. Security remains a challenging area of performance measurement, but requires vigilance for all modes. The scope of transportation security is extensive, including emergency management, cybersecurity, human trafficking, bio-hazards, and terrorism prevention.

Emergency management, including preparedness planning, response and recovery activities, is primarily the responsibility of the Florida Division of Emergency Management. The division works as a team with emergency responders and agencies at the federal, state, regional, and local levels as well as private sector and volunteer organizations. By statute (252.38, F.S.), each county must have an emergency management plan – all 67 Florida counties are currently in compliance. FDOT participates in this process by preparing for and addressing the aftermath of severe storms through coordinated response with the Florida Division of Emergency Management and local Emergency Operation Centers.

Since September 11, 2001, cargo and passenger safety and security have become paramount to local governments, transit agencies, airports, and water port authorities. Seaports have enhanced security systems to control and protect both land-side and water-side access in compliance with all state and federal security requirements. Seaports work directly with the Florida Department of Law Enforcement and federal agencies such as the Coast Guard to ensure compliance with these requirements.

### Transportation Security

The U.S. Department of Homeland Security's Transportation Security Administration recognized Pinellas Suncoast Transit Authority (PSTA), Miami-Dade Transit (MDT) and Hillsborough Area Regional Transit as among the nation's best transit systems in terms of safety and security.

The TSA awarded PSTA the "Gold Standard" designation for the transit agency's dedication to building a strong safety and security program, in accordance with the TSA's Baseline Assessment for Security Enhancement (BASE) criteria.



Transportation system security involves many varied organizations including:

- U.S. Department of Homeland Security
  - U.S. Citizenship and Immigration Services (USCIS)
  - U.S. Coast Guard (USCG)
  - U.S. Customs and Border Protection (CPB)
  - U.S. Immigration and Customs Enforcement (ICE)
  - U.S. Secret Service (USSS)
  - U.S. Transportation Security Administration (TSA)
- Federal Emergency Management Agency (FEMA)
- Other designated federal agencies
- Florida Department of Law Enforcement
- Florida Department of Highway Safety and Motor Vehicles
  - Florida Highway Patrol (FHP)
  - FHP's Commercial Vehicle Office (CVE)
- Transit, airport, seaport, and rail security officials
- Local law enforcement agencies

The FHP/CVE law enforcement activities, such as hazardous vehicle inspections, are a crucial element in domestic security.

## KEY STRATEGIES TO ENHANCE SECURITY

FDOT supports and partners with various organizations to improve security in advancing the strategies identified below:

- Increase the efficiency and capacity of customs, immigration, and other security processes at airports, seaports, and other hubs to accommodate growth in demand including peak flows related to larger vehicles.
- Improve emergency response time.
- Provide transportation connectivity to Florida's military facilities to support their national security and emergency response functions.
- Use technology, information, and operations strategies for all modes to improve transportation security and emergency preparedness and response.
- Provide training to first responders to improve trauma management.
- Enhance transportation security systems to address continuing, new, and emerging threats, such as biosecurity, food security, invasive species, nuclear materials, and human trafficking.
- Provide more diversity and redundancy in the transportation system to allow alternatives for evacuation and response during emergencies.
- Reduce the vulnerability of transportation technologies to hacking, cyberattacks, system failure, and other disruptions.
- Continue to develop and implement safety and security improvement plans for all modes of transportation at the state, regional, and local levels, such as Florida's Strategic Highway Safety Plan.
- Strengthen state and local enforcement and prosecutorial capabilities to ensure compliance with transportation safety and security laws and regulations.
- Develop and implement comprehensive emergency response and recovery plans involving state, regional, and local transportation, law enforcement, and emergency management agencies.
- Identify opportunities to work with federal, military and civil, state, and local partners and the private sector to integrate new aviation and space technologies while ensuring the safety and security of the airspace.
- Enhance security regulations, processes, communications, information systems, and infrastructure to improve customer service and reduce customer wait time.



## Partner Connections

*Partner Connections* highlights FDOT's recent collaborations with various partner and stakeholder organizations to consider ways to improve our transportation system performance together.

“ Don't let your car be your casket.

McKenzie (6th Grade)  
Three Oak Middle School

”

“ Even one death on our transportation system is unacceptable.

Toward Zero Deaths  
Federal Highway Administration

”

## Strategic Safety Partners

Federal Highway Administration

Federal Motor Carrier Safety Administration

Florida Association of County Engineers and Road Superintendents

Florida Highway Patrol

Florida Police Chiefs Association

Florida Rail Enterprise

Florida Sheriffs Association

Metropolitan Planning Organization Advisory Council

National Highway Traffic Safety Administration



## Innovation



## Safety

*These ideas on innovation, collaboration, and potential measures were identified by FDOT's partners through our first Summit for Transportation Partners held in May 2016 and through the Florida Transportation Plan.*

- Identify ways that technology can improve public safety including reducing crashes, reducing crime, improving transit safety, etc.
- Evaluate how connected and autonomous vehicles will impact safety
- Leverage advances in safety data and mapping software to present safety performance data more visually
- Consider incorporating questions in the driver license exam related to bicycle and pedestrian safety
- Provide bicycle and pedestrian safety training classes in schools
- Increase awareness, education, and enforcement related to aggressive and distracted driving



## Collaboration



## Potential Measures

*These ideas on innovation, collaboration, and potential measures were identified by FDOT's partners through our first Summit for Transportation Partners held in May 2016 and through the Florida Transportation Plan.*

- Place greater emphasis on safety in state and regional transportation planning
- Provide technical assistance and/or guidance so that safety considerations can be effectively coordinated with land use—safe walkability, for example, is a key attribute for successful transit oriented development around stations
- Expand and improve partner and stakeholder shared strategies for improving transportation safety
- Ensure that transportation gets sufficient consideration in emergency response planning
- Identify and incorporate transit performance measures related to safety and security
- Consider the potential benefit of independent reviews of safety performance measures
- Use Complete Streets measures related to safety improvement—e.g., comparing crash rates for streets that have and don't have complete street elements
- Collect low cost bicycle and pedestrian count data as an important component of gauging safety—this could help prevent accidents
- Explore collaborative approaches to partner with varied organizations to share and compare safety data

## Partner Connection Reports



## Florida Strategic Highway Safety Plan

August 2016

The Strategic Highway Safety Plan (SHSP) is a statewide, data-driven safety plan for all of Florida's road users. The plan is the state's five-year comprehensive roadway safety plan for achieving Florida's vision of zero traffic-related fatalities. The SHSP includes 13 emphasis areas that guide Florida's safety efforts.